What is claimed is:

1. A semiconductor cooling device comprising:

a cold plate for cooling a semiconductor element;

a condenser;

an inverter-controlled refrigerant pump, said cold plate, condenser and refrigerant pump being fluid connected in series with each other to define a refrigerating cycle;

a fan for cooling said condenser;

a temperature detector disposed in proximity to said semiconductor element; and

a controller for controlling said refrigerant pump and said fan;

wherein said controller controls the number of revolutions of said refrigerant pump and that of said fan depending on a value measured by said temperature detector.

2. The semiconductor cooling device according to claim 1, wherein the temperature detector is accommodated in said semiconductor element.

3. The semiconductor cooling device according to claim 1, wherein when the amount of heat emitted from said semiconductor element is less than a predetermined level, said controller reduces the number of revolutions of said fan before that of said refrigerant pump.

4. The semiconductor cooling device according to claim 1, wherein when the value measured by said temperature detector increases more than a predetermined value within a predetermined period of time, said controller maximizes the number of revolutions of said fan and thereafter increases the number of revolutions of said refrigerant pump step by step while comparing the value measured by said temperature detector with a value set in said controller, and wherein when the number of revolutions of said refrigerant pump has reached a maximum value, if the value measured by said temperature detector does not

become less than the set value, said controller outputs an alarm signal.

5. The semiconductor cooling device according to claim 1, wherein said controller watches a signal indicative of a current value of said refrigerant pump, and if such current value becomes greater than a value set in said controller, said controller outputs an alarm signal.

6. The semiconductor cooling device according to claim 1, wherein said controller watches an operating time of said refrigerant pump, and if a total operating time of said refrigerant pump has reached a service life set in said controller, said controller outputs an alarm signal.